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BURNS DOANE SWECKER & MATHIS
P O BOX 1404
ALEXANDRIA VA 22313-1404

EXAMINER
COLBERT, E

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Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

	Application No.	Applicant(s)	
Office Action Summary	08/947,435	Ferguson et al	
	Examiner	Group Art Unit	
	Ella Colbert	2771	‖‖‖‖‖‖‖ 13

☒ Responsive to communication(s) filed on _Mar 20, 2000_ _____ .

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire ___*Three*___ month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) _1-28, 30-51, and 53-83_ _____ is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) _1-28, 30-46, and 51_ _____ is/are rejected.

☒ Claim(s) _47-50 and 53-83_ _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐approved ☐disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

   ☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

     ☐ received.

     ☐ received in Application No. (Series Code/Serial Number) _____ .

     ☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   *Certified copies not received: _____ .

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- *SEE OFFICE ACTION ON THE FOLLOWING PAGES* ---

DETAILED ACTION

1.   Claims 1-83 are presented for examination.

2.   This Office Action is in response to the Applicant's Appeal Brief filed on March 20, 2000

and entered as Paper No. 12.

3.   Applicant's finality of the rejection of the last Office action on September 16, 1999 entered

as Paper No. 7 is withdrawn.

4.   Applicant's request for reconsideration filed on December 16, 1999 has been entered as

Paper No. 8.

5.   Applicant's Arguments have been considered and addressed herein below.

Response to Arguments

6.   In Applicant's Response, Applicant's argue in Paper No. 12 (Appeal Brief), on page 7: a)

"the last step of claim 1 is dissected into two independent parts: a first part which involves the

first half of the step "linking the imported document to a first electronic folder" and the second

part which involves the last half of the step, "if the attribute data contained in the said data

structure matches a set of predefined criteria corresponding to the first electronic folder;" on page

11: b) the Appellants respectfully contend Zarmer in claim 2, does not teach, suggest or other

wise mention optical scanners, optically scanning paper-based documents or converting such

documents once they have been scanned; on page 12: c) the Examiner treats claim 51 in much the

same manner that she treated claim 1 by separating several claim features into portions, which she

examined independently. After analyzing Zarmer, it is clear that Zarmer also fails to teach or

suggest "automatically extracting attribute data from the document" and linking the document to the first electronic folder if the attribute data extracted from the document and stored in the data structure matches the category criteria;" on page 15; d) in claims 3-10, 11-16, and 17-24, Fujisawa fails to make up for the aforementioned deficiencies of Zarmer and Fujisawa fails to teach or suggest a method for managing a document collection in a computer system that comprises, *inter alia*, automatically extracting attribute data from an imported document, generating a data structure associated with the imported document, wherein the data structure contains the extracted attribute data, and linking the imported document to an electronic folder if the attribute data matches a set of predefined criteria associated with the electronic folder;" on page 19: e) the Appellants respectfully contend that it is immaterial as to whether it would have been obvious to one of ordinary skill in the art "to have a data structure," but what is material, according to 35 U.S.C. 103 (a), is whether it would have been obvious to one of skill in the art to provide a method, as defined by claim 1, which further includes steps, such as, electronically analyzing the attribute data stored in the data structure; determining whether the document is to be automatically linked to or excluded from the electronic folder, based on the aforementioned analysis; and identifying the document on an inclusion list or exclusion list accordingly;" on page 20: f) the Appellants respectfully contend that it is immaterial as to whether it would have been obvious to one of ordinary skill in the art "to match predefined criteria," but "what is material is whether it would have been obvious to one of ordinary skill in the art to provide a method, as defined by claim 1, which further includes steps, such as, monitoring document modifications and

automatically establishing a link or deleting the link between the document and the electronic

folder if the document modifications cause the attribute data to match, or no longer match, the set

of predefined criteria corresponding to the first electronic folder, respectively;" on page 21: g) in

claims 34-38, after analyzing Malone, and in particular, the various passages in Malone cited by

the Examiner in the final Office Action, the Appellants respectfully contend that Malone does not

teach or suggest a method, as defined by claim 1, that extracts attribute data from an imported

electronic document, where the attribute data may be defined as a document title, a document

author, a phrase that is associated with the document, or a common concept; and on page 22: h)

the Appellants respectfully contend, however, that it is immaterial as to whether it would have

been obvious to one of ordinary skill in the art "to have a first electronic folder, to have user-

defined behavior and to combine Zarmer's data structure and Fujisawa's data attributes with

Malone's predefined behavior," and "to e-mail a document to a preprogrammed e-mail address

and combine Zarmer's electronic document and Fujisawa's image format with Malone's

preprogrammed e-mail address," but what is material is whether it would have been obvious to

one of skill in the art to provide a method, as defined by claim 1, which further includes a step of

automatically manipulating the document based on a predefined behavior associated with the

electronic folder, defines predefined behavior as being user-defined behavior, and further defines

predefined behavior as involving e-mailing a document to a preprogrammed e-mail address."

As to a) - h) above, in this rejection of claim 1 and others, for example, under Section 103

of Title 35 of the United States Code, the Examiner carefully drew up a correspondence between

each of Applicant's claimed limitations, what is well known in the art, and one or more referenced

passages of Zarmer, Fujisawa, and Malone. The Examiner is entitled to give claim limitations

their broadest reasonable interpretation in light of the Specification (see below):

2111   Claim Interpretation; Broadest Reasonable Interpretation [R-1]

>CLAIMS MUST BE GIVEN THEIR BROADEST REASONABLE INTERPRETATION

   During patent examination, the pending claims must be "given the broadest reasonable interpretation consistent
with the specification." Applicant always has the opportunity to amend the claims during prosecution and broad
interpretation by the examiner reduces the possibility that the claim, once issued, will be interpreted more broadly than is
justified. In re Prater, 162 USPQ 541,550-51 (CCPA 1969).<

In this instance, as to a) above, the Appellant's arguments are moot in view of the new

ground(s) of rejection for claim 1. As to b) above, Zarmer does not explicitly teach in claim 2,

optically scanning paper-based documents or converting such documents once they have been

scanned, however, it would have been obvious in view of his teachings of electronic publishing of

documents (as taught in the background, column 1 and the summary of the invention, column 2).

As to c) above, claim 51 has been addressed above in the discussion of claim 1. As to d) above,

Zarmer and Fujisawa together teach the Appellant's method claim limitations in conjunction with

what is well known in the art in claims 3-10. Fujisawa teaches the "first format is an image

format" (the recognition is the document image) column 7, lines 18-19, figure 1 (152), "the

format is a text format" (a text recognition) column 7, lines 14 and 20-23, "importing an

electronic document" (loading the text from the optical disk in the database to provide an original

document) column 1, lines 30-38, "the document is a word processing document" was not

explicitly taught by Zarmer nor Fujisawa, however, in view of Zarmer document publishing (as

taught in the background, column 1) and Fujisawa's document text (as taught in the background, columns 1-2) for the document to be a word processing document to perform this method step of claim 6. Zarmer nor Fujisawa did not teach in claims 8 and 10, "the document is an e-mail message" or "the first format is an HTML format." It is well known in the art that e-mail messages are a convenient and economical method of communication and e-mail messages are written in a HTML (Hypertext Markup Language) for sending over the Internet. As to e) above, step 1 this argument have been addressed in a) above. As to the steps "determining whether the document is to be automatically linked to or excluded from the folder" and "identifying the document on an inclusion list" was not taught by Zarmer, Fujisawa, nor Malone, but is well known in the art of Lotus Notes and Microsoft Windows '98 for a user to be able to generate data from document storage and depending on the document contents the user can decide whether to link the folder to the next folder in the hierarchy and the list identifies documents that have been excluded during the categorization process that are not associated with a folder. As to f) above, Malone teaches the claim limitation "monitoring document modifications and establishing a link of deleting a link between the document and the electronic folder if the document modifications cause the attribute data to match or no longer match the set of predefined criteria corresponding to the first electronic folder" in claim 32 in column 4, lines 35-55, column 5, lines 1-16, 44-58, and column 6, lines 18-33. As to g) above, the steps for extracting attribute data from an imported electronic document, the attribute data being defined as a document title, a document author, a phrase associated with the document, and a common concept are well known

as method steps for retrieving, importing, exporting, and creating documents in a system using hierarchical folders. As to h) above, it is well known in the art to provide method steps for automatically manipulating a document based on predefined behavior associated with an electronic folder and for the predefined behavior to be user-defined and for the predefined behavior to involve e-mailing a document to a preprogrammed e-mail address because a user in such a system with electronic folder and documents can program a folder based on the characteristics associated with the contents of the folder whether it is the first folder or another folder. Malone teaches the predefined behavior is user-defined behavior, however, any behavior in relation to manipulating a document is user- defined according to how the user manipulates the commands for the document or electronic folder and when sending an e-mail the sender has the capability to e-mail all of the documents that are stored in a folder to a particular recipient's e-mail address. This can be performed in Lotus Notes cc: Mail or any other e-mail program. A method is defined in Webster's Dictionary as a "procedure or process, a way, a technique for doing something." Therefore, these three steps constitute a method as taught by Malone.

Claim Rejections - 35 USC § 112

7.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 32, 33, 39, 51, and 53-58 are rejected under 35 U.S.C. 112,

second paragraph, as being indefinite for failing to particularly point out

and distinctly claim the subject matter which applicant regards as the

invention.

8.   Claim 1 recites the limitation "predefined criteria" in line 13 on page 1(Appeal Brief

Appendix). Claims 32, 33, and 58 recite the same limitation. Claim 39 recites the limitation

"predefined behavior" in line 2, page 3 (1(Appeal Brief Appendix). Claim 51 recites the limitation

"predefining category criteria" in line 12, page 6 (Appeal Brief Appendix). Claims 53, 54, and 57

recite the same limitation. Claim 55 recites the limitation "category criteria" on page 6, line 6

(Appeal Brief Appendix). Claim 56 recite the same limitation. These limitations are not clear to

the Examiner. Clarification to the Examiner and in the claim language is respectfully requested.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> (e) the invention was described in a patent granted on an application for patent by another filed in the
> United States before the invention thereof by the applicant for patent, or on an international application
> by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title
> before the invention thereof by the applicant for patent.

9.   Claims 1, 2, and 51 are rejected under 35 U.S.C. 102(e) as being anticipated by Zarmer et

al (US 5,625,818), hereafter Zarmer.

With respect to claim 1, importing a document with a first format into a collection or

documents in the computer system" (**column 6, lines 19-40**), the collection of documents is

organized within the computer system according to a hierarchy of electronic folders, storing the

document in a memory location" (**column 7, lines 18-27, column 12, lines 41-48, and column**

18, lines 17-23), "automatically extracting attribute data from the document" (**column 18, lines 24-34**) and "generating a data structure for the document" (**column 23, Lines 40-51 and column 24, lines 48-63**), the data structure contains the attribute data in a second format independent of the first format" (**column 4, lines 43-52**), the data structure is stored and maintained in memory separate from the imported document (**column 4, lines 61-67**), and "linking the imported document to a first electronic folder if the attribute data in the data structure matches a set of predefined criteria corresponding to the first electronic folder" (**column 6, lines 12-15 and lines 35-40**).

With respect to claim 2, "optically scanning a paper-based document" and converting the optically scanned document into an electronic document (**column 4, lines 26-42**).

With respect to independent claim 51 recites a computer-readable storage medium with many of the claim limitations recited in independent claim 1. Furthermore, extracted attribute data in a standardized format regardless of the document type or document format, the data structure stored in memory separate from the document, predefining category criteria for a first electronic folder, the first electronic folder being one of the electronic folders that makes up the hierarchy of electronic folders, is inherent to the extraction of attribute data (the size of the document, date the document was created, etc.) and a standardized document format (rich text format such as PDF (Portable Document Format). Any data structure stored in a CD ROM or other type of disk memory storage is separate always separate from the document. A predefining category for a first electronic folder can be any name that is given to the folder by a user and this

folder is always at the top of a hierarchy of folders because it is well known in the art that a hierarchy is arranged in such a way that some items are above or below others in a tree-like structure. The root of the hierarchy is the main item (in this case the first folder) that is above all of the others.

10.   Claims 3-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zarmer in view of Fujisawa et al (5,628,003), hereafter Fujisawa.

With respect to claim 3, Zarmer did not teach "the first format is an image format."

Fujisawa taught this in **column 7, in particular lines 13-23**. It would have been obvious at the time the invention was made to a person of ordinary skill in the art of first formats to have an image format and to combine Zarmer's document with a first format with Fujisawa's first format being an image because many word processing programs have the ability to import the text and graphics from other file formats.

With respect to claim 4, Zarmer did not teach "the first format is a text format." Fujisawa taught this in **column 1, lines 63-67**. It would have been obvious at the time the invention was made to a person of ordinary skill in the art of formats to have a text format and to combine Zarmer's collection of documents with Fujisawa's first format being a text format because importing a document is a type of file conversion with word processing programs having the ability to import text from several file formats.

With respect to claim 5, Zarmer did not teach "importing an electronic document."

Fujisawa did not explicitly teach this in **column 1, lines 30-38,** however, it would have been obvious in view of his teachings of loading the text of a document from an optical disk(as taught in the background, column 1). It would have been obvious at the time the invention was made to a person of ordinary skill in the art of importing documents to have a electronic document and to combine Zarmer's collection of documents with Fujisawa's document importing because an electronic document has the ability to have text and graphics from several file formats when being loaded from a format other than the application program's native format.

With respect to dependent claim 6, this claim is rejected on grounds corresponding to the rejection given above for rejected dependent claim 4.

With respect to claim 7, Zarmer nor Fujisawa taught "the document is a word processing document," but it would have been obvious to a person of ordinary skill in the art of documents at the time the invention was made for the document to be a word processing document because word processing is prepared in clearly worded, readable text without elaborate design or typography.

With respect to claim 8, Zarmer nor Fujisawa taught "the document is an e-mail message," but it would have been obvious to a person of ordinary skill in the art of documents at the time the invention was made for the document to be an e-mail message because e-mail documents are much more convenient than ordinary mail or telephone calls since it arrives immediately but doesn't require a recipient to be present.

With respect to dependent claim 9, this claim is rejected on grounds corresponding to the rejection given above for rejected dependent claim 3.

With respect to claim 10, Zarmer nor Fujisawa taught "the first format is an HTML format," but it would have been obvious to a person of ordinary skill in the art of formats at the time the invention was made for the document to be in HTML format because HTML (Hypertext Markup Language) is a set of codes that can be inserted into text files to indicate special features such as typefaces, inserted images and links to other hypertext documents on the Internet and almost any word processor or page layout can be used to produce HTML.

11.   Claims 11-28 and 30-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zarmer and Fujisawa and further in view of Malone et al (5,727,175), hereafter Malone.

With respect to claim 11, Zarmer nor Fujisawa taught "the second format comprises as least one data field."

Malone taught this in **column 5, lines 2-16**. It would have been obvious at the time the invention was made to a person of ordinary skill in the art of second formats to have a data field and to combine Zarmer's first format and Fujisawa's first image format with Malone's second format comprising a data field because the field contains a "single fact" of data information relating to the document.

With respect to claim 12, Zarmer nor Fujisawa taught "the at least one data field contains a file name."

Malone taught this in **column 7, lines 8-15 and column 9, lines 29-49**. It would have been obvious at the time the invention was made to a person of ordinary skill in the art of data fields to have a file name and to combine Zarmer's hierarchy of folders and Fujisawa's text format with Malone's data field containing a file name because the contents of a data field contains a "single fact" relating to the name the user gave the file for searching and later retrieval.

With respect to claim 13, Zarmer, Fujisawa, nor Malone taught "at least one data field contains the memory location," but it would have been obvious at the time the invention was made to a person of ordinary skill in the art of memory locations to have a data field because the information being worked on is stored in the memory.

With respect to claim 14, Zarmer nor Fujisawa taught "the data field contains a bit map."

Malone taught this in **column 6, lines 18-33**. It would have been obvious at the time the invention was made to a person of ordinary skill in the art of data fields to have a bit map and to combine Zarmer's data structure and Fujisawa's image format with Malone's data field containing a bit map because bitmaps can be imported into other application programs such as word processing programs.

With respect to claim 15, Zarmer, Fujisawa, nor Malone taught "the data field contains raw text," but it would have been obvious at the time the invention was made to a person of ordinary skill in the art of raw text to have a data field because the raw text is the information that is waiting to be processed by a user.

With respect to claim 16, Zarmer nor Fujisawa taught "the data field contains a data attribute."

Malone taught this in **column 18, lines 40-49**. It would have been obvious to a person of ordinary skill in the art of data attributes at the time the invention was made to have a data field and to combine Zarmer's extraction of attribute data and Fujisawa's text format with Malone's data field containing a data attribute because the attributes can customize which paragraphs are displayed for a document in a hierarchical tree-structure.

With respect to claim 17, Zarmer nor Fujisawa taught "the data attribute is an author name."

Malone taught this in **column 13, lines 51-63, column 15, lines 24-38, and figures 4 and 15**. It would have been obvious to a person of ordinary skill in the art of data attributes at the time the invention was made for the attribute to be an author name and to combine Zarmer's electronic document and Fujisawa's first format with Malone's author's name being a data attribute because the attribute customizes the name of the sender of an e-mail message.

With respect to claim 18, Zarmer nor Fujisawa taught "the data attribute is a publication date."

Malone taught this in **column 13, lines 6-20 and column 16, lines 31-47**. It would have been obvious to a person of ordinary skill in the art of publication dates at the time the invention was made for the attribute to be a publication date and to combine Zarmer's attribute data and Fujisawa's text format with Malone's data attribute being a publication date because the user can

perform a search through a document collection to find when the document was first published by the author.

With respect to claim 19, Zarmer, Fujisawa, nor Malone taught "the data attribute is a word count," but it would have been obvious to a person of ordinary skill in the art of data attributes at the time the invention was made to have a word count because a document is formatted according to the number of words contained in the text of the word processing document that will fit on a page.

With respect to claim 20, Zarmer, Fujisawa, nor Malone taught " the data attribute is an annotation," but it would have been obvious to a person of ordinary skill in the art of annotations at the time the invention was made for the data attribute to be an annotation because an annotation is used as an attachment to part of a document that provides a comment or explanation related to the document contents.

With respect to claim 21, Zarmer nor Fujisawa taught "the data attribute is a keyword."

Malone taught this in **column 10, lines 4-40**. It would have been obvious to a person of ordinary skill in the art of using keywords at the time the invention was made to have a data attribute and to combine Zarmer's collection of documents and Fujisawa's text format with Malone's keyword being a data attribute because keywords have a special meaning when performing searches. For example, the U.S. Patent Office's automated search and retrieval system uses keywords for searching and retrieving information and related documents.

With respect to claim 22, Zarmer nor Fujisawa taught "the data attribute is an image type."

Malone taught this in **column 19, lines 6-26**. It would have been obvious to a person of ordinary skill in the art of image types at the time the invention was made to have a data attribute and to combine Zarmer's first document format and Fujisawa's image format with Malone's image type being a data attribute because the attribute of the image in word processing and graphics programs can be a thumbnail (often referred to as a thumbprint) of a document designed to fit in the corner of the computer screen.

With respect to claim 23, Zarmer nor Fujisawa taught "the data attribute is an image dimension."

Malone taught this in **column 20, lines 8-18**. It would have been obvious to a person of ordinary skill in the art of image dimensions at the time the invention was made to have a data attribute that is an image dimension and to combine Zarmer's data structure and Fujisawa's first format being an image format with Malone's image dimension being a data attribute because in word processing and graphics programs a document image can be sized to be either full-scale or to be a thumbnail of the document.

With respect to claim 24, Zarmer, Fujisawa, nor Malone taught "the data attribute is meta-text with positioning information," but it would have been obvious to a person of ordinary skill in the art of meta-text at the time the invention was made to have positioning information

because meta-text refers to the attributes of a document and identifies where the document is to be located in the hierarchical document collection.

With respect to claim 25, Zarmer, Fujisawa, nor Malone taught "comprising the step of extracting indexing information from the attribute data in the data structure," but it would have been obvious to a person of ordinary skill in the art of extracting indexing information at the time the invention was made to have a data structure because documents in a document collection have stored attributes relating to the document.

With respect to claim 26, Zarmer, Fujisawa, nor Malone taught, "monitoring modifications to the document," "extracting updated indexing information, and updating the attribute data contained in the data structure based on the updated indexing information," but it would have been obvious to a person of ordinary skill in the art of document modifications at the time the invention was made to extract the updated indexing information and to updated the attribute data because in an indexing database a comparison is made of the search terms initiated by a user.

With respect to dependent claim 27, this claim is rejected on grounds corresponding to the rejection given above for rejected dependent claim 15.

With respect to claim 28, Zarmer nor Fujisawa taught "identify the document from among other documents in the document collection utilizing the indexing information."

Malone taught this in **column 1, lines 52-67 and column 2, lines 1-2.** It would have been obvious to a person of ordinary skill in the art of document identification at the time the

invention was made to combine Zarmer's hierarchy of electronic folders and Fujisawa's file name with Malone's indexing information because the indexing database stores the keywords or attributes that are associated with the documents in the document collection.

With respect to claim 30, Zarmer, Fujisawa, nor Malone taught "electronically analyzing the attribute data stored in the data structure corresponding to the document" and determining whether the document is to be automatically linked to the first electronic folder, based on the electronic analysis of the attribute data stored in the data structure," but it would have been obvious to a person of ordinary skill in the art of analyzing data attributes at the time the invention was made to have a stored data structure because for example, in Lotus Notes and Microsoft Windows '98 a user can generate the data from document storage and depending on the document contents the user can decide whether to link the folder to the next folder in the hierarchy. Zarmer, Fujisawa, nor Malone taught "identifying the document on an inclusion list if it is determined that the document is not automatically linked to the first document," but it would have been obvious to a person of ordinary skill in the art of document identification at the time the invention was made to have an inclusion list because the list identifies documents that are excluded during the categorization process and are not associated with an electronic folder.

With respect to dependent claim 31, this claim is rejected on grounds corresponding to the rejection given above for rejected dependent claim 30.

In regard to claim 32, Zarmer nor Fujisawa taught "monitoring the document modifications."

Malone taught this in **column 3, lines 63-67 and column 4, lines 1-55**. It would have been obvious to a person of ordinary skill in the art of document modifications at the time the invention was made to monitor the modifications and to combine Zarmer's attribute data and Fujisawa's electronic document importing with Malone's monitoring document modifications because the user can change the document data by making additions or deletions to the document contents. Zarmer, Fujisawa, nor Malone taught "Automatically linking the document to a second electronic folder if a document modification causes the attribute data to match a set of predefined criteria corresponding to the second electronic folder," but it would have been obvious to a person of ordinary skill in the art of document linking at the time the invention was made to match the predefined criteria because if a user modifies the contents of the document the modification to the document will change the users created links to the folders in the hierarchy.

With respect to dependent claim 33, this claim is rejected on grounds corresponding to the rejection given above for rejected dependent claim 32.

With respect to claim 34, Zarmer nor Fujisawa taught "the attribute data is a document title."

Malone taught this in **column 25, lines 2-31 and figure 2 (document entitled "BUG FIX REQUEST")**. It would have been obvious to a person of ordinary skill in the art of document modifications at the time the invention was made to have a document title and to combine Zarmer's first format and Fujisawa's file name with Malone's document title because the document has the attributes associated with the title or heading of the e-mail messages.

With respect to claim 35, this claim is rejected on grounds corresponding to the rejection given above for rejected dependent claim 17.

With respect to claim 36, Zarmer nor Fujisawa taught "the attribute data is a phrase associated with the document."

Malone taught this in **column 21, lines 50-63, column 28, lines 37-57, and figure 16.** It would have been obvious to a person of ordinary skill in the art of phrases at the time the invention was made to have the phrase associated with the document and to combine Zarmer's data structure and Fujisawa's text format with Malone's attribute data because the attribute data is a fragment corresponding to the document in the indexing database storage.

With respect to dependent claim 37, this claim is rejected on grounds corresponding to the rejection given above for rejected dependent claim 21.

With respect to claim 38, Zarmer, Fujisawa, nor Malone taught "the data attribute is a common concept," it would have been obvious to a person of ordinary skill in the art of common concepts at the time the invention was made to have a data attribute because a search allows a user to retrieve documents matching the attribute data including text, metadata and the format of the document in the collection.

With respect to claim 39, Zarmer, Fujisawa, nor Malone taught "automatically manipulating the document based on a predefined behavior associated with the first electronic folder," but it would have been obvious to a person of ordinary skill in the art of document manipulation at the time the invention was made to have a first electronic folder because a user

can program a folder with particular characteristics relating to the folder contents and manipulate

the folder by giving a command.

With respect to claim 40, Zarmer nor Fujisawa taught " the predefined behavior is user-

defined behavior."

Malone taught this in **column 3, lines 26-67 and column 4, lines 1-55**. It would have

been obvious to a person of ordinary skill in the art of user-predefined behavior at the time the

invention was made to have user-defined behavior and to combine Zarmer's data structure and

Fujisawa's data attributes with Malone's predefined behavior because the user can program the

folder to perform certain functions when the documents are linked to a hierarchical folder in a

managed document collection. All user behavior is predefined behavior when manipulating

documents and folders.

With respect to claim 41, Zarmer nor Fujisawa taught "the predefined behavior involves e-

mailing the document to a preprogrammed e-mail address."

Malone taught this in **column 11, lines 42-64 and column 12, lines 53-60**. It would have

been obvious to a person of ordinary skill in the art of predefined behavior at the time the

invention was made to e-mail a document to a preprogrammed e-mail address and to combine

Zarmer's electronic document and Fujisawa's image format with Malone's preprogrammed e-mail

address because the user has the capability to e-mail all of the documents that are stored in a

folder to a particular recipient's e-mail address. This can be performed in Lotus Notes cc: Mail or

any other e-mail program.

With respect to claim 42, Zarmer, Fujisawa, nor Malone taught "the predefined behavior involves providing controlled access to the document," but it would have been obvious to a person of ordinary skill in the art of predefined behavior at the time the invention was made to have controlled access because a user has the capability to program the folder according to the users specifications.

With respect to claim 43, Zarmer, Fujisawa, nor Malone taught, linking the document to a folder, the folder having associated with it a predefined behavior and automatically manipulating the document according to the predefined behavior," but it would have been obvious to a person of ordinary skill in the art of document manipulation at the time the invention was made to have a folder and to manipulate it automatically because certain tasks are performed when the documents are linked to folder which are initiated by the user.

With respect to dependent claim 44, this claim is rejected on grounds corresponding to the rejection given above for rejected dependent claim 40.

With respect to claim 45, this claim is rejected on grounds corresponding to the rejection given above for rejected dependent claim 41.

With respect to claim 46, this claim is rejected on grounds corresponding to the rejection given above for rejected dependent claim 42.

Allowable Subject Matter

12.   Claims 47-50 and 53-83 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

13.   The following is a statement of reasons for the indication of allowable subject matter:

Applicant's computer-readable storage medium with a program comprising executable steps for maintaining a second data structure including data defining a document hierarchy for a document collection in claims 47 and 80, updating the second data structure including data defining a link between the data structure of the imported document and a document hierarchy folder or category in claims 48 and 81, the second data structure including data linking all of the documents in the document collection to at least one folder or category in claims 49 and 82, maintaining a third data structure including data defining a second document hierarchy for the document collection or a portion of the second document hierarchy and the third data structure being maintained at a local terminal connected to the computer system in claims 50 and 83, electronically analyzing the attribute data stored in the data structure corresponding to the document and determining if the document is to be automatically linked or excluded from linking to the first electronic folder based on the comparison and identifying the document on an exclusion list if a determination is made that the document is not to be excluded from linking to the first electronic folder in claims 53 and 54, the step of predefining category criteria for the first electronic folder comprising the steps of storing and analyzing a seed document in the first

electronic folder, and extracting category criteria from the seed document in claim 55, the

predefined category criteria being based on user-defined criteria in claim 56, monitoring the

document modifications and linking the document to a second electronic folder if the document

modification and the attribute data matches a set of predefined criteria corresponding to the

second electronic folder in claim 57, the attribute data being a document title, a document author,

a phrase associated with the document, a common concept, and a keyword in claims 59-63,

linking the document with an electronic folder and manipulating the document automatically

based on a predefined behavior associated with the first electronic folder in claim 64, the

predefined behavior involves e-mailing the document to a preprogrammed e-mail address and

providing controlled access to the document in claims 65-67, the step of importing a document

into the computer-based system comprising the executable steps of generating program

instructions causing an optical scanner connected to the computer system to optically scan the

document with the document being a paper-based document and converting the optically scanned

document into an electronic document in claim 68, the electronic document being an image file, a

text file, a word processing document, contains an image, is an e-mail, and is an HTML format in

claims 69-75, extracting indexing information and updated indexing information from the attribute

data in the data structure and monitoring modifications to the document in claims 76 and 77, the

attribute data being derived from a data field in the data structure comprising raw text data in

claim 78, and identifying the document from among the other documents stored in the computer

system utilizing the indexing information in claim 79, would not have been shown by the prior art

of record, would not have been obvious over the prior art of record, nor would have been fairly

suggested by the prior art of record.

Conclusion

14.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure.

Mori (5,418,946) taught a hierarchy of folders and classification.

Katz et al (5,309,359) taught annotations, text retrieval, and a hierarchical tree structure.

Sasaki et al (5,812,995) taught an electronic document filing system.

Okada et al (5,995,098) taught a personal information system with a hierarchy of folders.

INQUIRIES

15.   Any inquiry concerning this communication or earlier communications from the examiner

should be directed to Ella Colbert whose telephone number is (703)308-7064. The

examiner can normally be reached Monday through Thursday from 6:30 a.m. to 3:00 p.m.

EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Kim Vu, can be reached on (703)305-4393.

Any response to this action should be mailed to:

> Commissioner of Patents and Trademarks
> Washington, D.C. 20231

Or faxed to:

(703)308-9051, (for formal communications intended for entry).

Or:

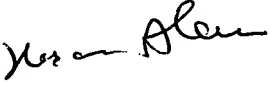(703)308-5403 (for informal or draft communications, please label

"PROPOSED" or **"DRAFT"**).

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, Virginia., Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group Receptionist whose telephone number is (703)308-9600.

Colbert
June 2, 2000

HOSAIN T. ALAM
PRIMARY EXAMINER